

Listing of Claims

1. - 37. (Canceled).

38. (**Currently Amended**) A method for microdissecting a tissue sample, comprising:
pre-mixing a primary antibody and a secondary antibody, at least one of which is
fluorescently labeled, to form a fluorescent specific binding agent;
contacting the tissue sample with the fluorescent specific binding agent to provide
selectively labeled cells ~~or other tissue structures~~ in the tissue sample;
identifying the selectively labeled cells ~~or other tissue structures~~ in the sample by
detecting fluorescence of the selectively labeled cells ~~or other tissue structures~~ in the tissue
sample; and
microdissecting the selectively labeled target cells ~~or other tissue structures~~ from the
tissue.

39. and 40. (Canceled).

41. (**Currently Amended**) A method for microdissecting a tissue sample,
~~comprising: The method of claim 40, further comprising:~~
pre-mixing a primary antibody and a secondary antibody, at least one of which is
fluorescent, to generate ~~the~~ a fluorescent specific binding agent;
contacting the tissue sample with the fluorescent specific binding agent to provide
selectively labeled cells in the tissue sample;
identifying the selectively labeled cells in the sample by detecting fluorescence of the
selectively labeled cells in the tissue sample; and
microdissecting the selectively labeled target cells from the tissue;
wherein pre-mixing the primary antibody and the secondary antibody occurs prior to exposing
the tissue to the fluorescent specific binding agent in order to reduce a time of exposure of the
tissue to the fluorescent specific binding agent.

42. through 54. (Canceled).

55. **(New)** A method for microdissecting tissue, comprising:
labeling a sample of tissue using a method comprising:
 premixing a primary antibody and a secondary antibody, at least one of which is
 fluorescently labeled, to form a fluorescent specific binding agent, prior to exposing
 the tissue to the fluorescent specific binding agent;
 contacting the tissue with the fluorescent specific binding agent at a concentration to
 provide selectively labeled cells against which the fluorescent specific binding agent
 is directed in less than about five minutes;
 wherein the biological molecule in the tissue is preserved after the tissue is contacted
 with the fluorescent specific binding agent, by labeling the cells in less than five
 minutes;
identifying the selectively labeled cells in the sample by detecting fluorescence of the
selectively labeled cells in the tissue; and
microdissecting the selectively labeled cells from the tissue.